



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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May 26, 1994

Mr. Eldred M. Garrick
Consultant
Western Clay Company
5465 Fair Oaks Drive
Salt Lake City, Utah 84117

Re: Last Chance Bentonite Mine Plan Review, Western Clay Company, M/015/061,
Emery County, Utah.

Dear Mr. Garrick:

The Division has completed its review of your draft Notice of Intention to Commence Large Mining Operations for the Last Chance bentonite mine, located in Emery County, Utah. Please accept our apology for any inconvenience that this unforeseen delay in forwarding our review comments may have caused. After reviewing the information and performing an onsite inspection of the properties on April 21, 1994, the Division has the following comments which will need to be addressed before tentative approval may be granted. The comments are listed below under the applicable Minerals Rule heading. Please format your response in a similar fashion.

R647-4-105 - Maps, Drawings and Photographs

105.1.13 - Route of Access

Please provide the Division with a map showing the proposed route of access to the mine site from the nearest publicly maintained road. Please use an appropriate scale so an accurate measurement of the disturbed area associated with this road may be taken. (TWJ)

105.2.11 - Proposed surface facilities (buildings, stockpiles, roads, ponds, etc.)

Please provide a map(s) identifying the location and size of topsoil stockpiles, overburden stockpiles and reject clay stockpiles with borders for each area. (LMK/AAG)

105.2.12 - Border outlining Acreage

The operator needs to provide a map which clearly shows the extent of all existing and proposed mining disturbance, including the boundaries for highwalls, pits, waste piles, topsoil piles, haul roads, etc. (LMK)

105.3.17 - Reclamation Treatments Maps

Please provide the Division with a reclamation treatments map to identify the location and the extent of the reclamation work (backfilling, regrading, topsoiling, different revegetation practices, etc.) to be accomplished by the operator upon cessation of mining operations. This drawing shall be utilized to determine adequate bonding and reclamation practices for the site. This map should include compacted areas which will need to be ripped with a dozer, areas which will be regraded, fertilized, mulched, seeded, etc. Please identify the various areas with borders or different crosshatching. (TWJ/LMK/AAG)

R647-4-106: - Operation Plan

106.3 - Estimated acreages

Please provide acreage estimates for each type of area (e.g. roads, pits, waste areas, stockpiles, etc.) which match the borders shown on the reclamation treatments map. This will aid in bond calculations. (TWJ/AAG)

106.4 - Nature of materials including waste/overburden and estimated tonnage

Please provide an estimate of the volume of overburden (in cubic yards) to be removed and stockpiled from each of the newly proposed pits. Will this stockpiled overburden be of sufficient volume to backfill the pits to the 3h:1v reclamation profile as stated in item 4 of the BLM October 29, 1991 letter? (TWJ/AAG)

The operator needs to provide information concerning the nature (general chemistry) of overburden/waste materials (analyze for same parameters listed for topsoil listed under 106.5). (LMK)

106.5 - Existing soil types, location of plant growth material

Please provide specific information (Order 3 soil survey) on existing soils to be disturbed by mining operations, including a description of the soils found in the area

including depth and extent of soils to be impacted by operations. Chemical and physical analysis of the soil (and/or any substitute soil materials to be used), which includes at a minimum, texture, pH, SAR, EC, nitrogen, phosphorus and potassium needs to be provided. (LMK)

106.6 - Plan for protecting and redepositing existing soils

The plan needs to describe how topsoil piles will be protected. At a minimum they need to be stabilized against erosion (vegetated) and signed. (LMK)

106.7 - Existing vegetative communities to establish revegetation success

Please provide specific information regarding the current vegetation on site. What vegetative communities are/were present prior to mining, what plant species existed, relative cover values for vegetation and the methodology used to obtain vegetation data. (LMK)

R647-4-107 - Operation Practices

107.5 - Suitable soils removed & stored

Please identify those areas from where topsoil will be taken or stripped. How will it be stripped and where will it be stockpiled? Once stockpiled, they need to be protected with signs and berms. Topsoil stockpile locations need to be identified on the maps. The Division encourages salvaging topsoil even if only a few inches are available. This will aid in revegetation efforts and less disturbance from borrow areas will need to be created. (TWJ/ LMK)

107.6 - Concurrent Reclamation on areas when no longer needed

Please identify any areas that shall be reclaimed concurrent with the mining operations. (TWJ)

R647-4-109 - Impact Assessment

109.4 - Slope stability, erosion control, air quality, public health & safety

Has the Division of Air Quality been notified of this operation? Have they required any permits? (AAG)

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R647-4-110 - Reclamation Plan

110.1 - Current land use and postmining land use

It is assumed the current land use is limited grazing and recreation. This needs to be identified in the NOI. Also, please provide a description of the intended post mining land use (this needs to be coordinated with the BLM). (LMK)

110.5 - Revegetation planting program and topsoil redistribution

The BLM has recommended the following seed mix for reclamation. The operator will need to commit to using this seed mix or develop another mix in consultation with the BLM.

| <u>Species</u> | <u>Rate*</u> |
|---|--------------|
| Indian ricegrass (<u>Oryzopsis hymenoides</u>) | 2 |
| Blue grama (<u>Bouteloua gracilis</u>) | 2 |
| Galleta (<u>Hilaria jamesii</u>) | 2 |
| Yellow sweetclover (<u>Melilotus officinalis</u>) | 2 |
| Shadscale (<u>Atriplex confertifolia</u>) | 2 |

*Rate is pounds of pure live seed (PLS) per acre.

A nitrogen fertilizer (21-0-0) should be added at 40 pounds/ac.

This seed mix should be drilled onto prepared seedbed late in the fall, (late October). If regrading was completed prior to September 1, the area should be ripped or disced prior to seeding. (LMK)

Tilling in 3,000-4,000 pounds of alfalfa hay into the top 6 inches of soil at the time of reclamation will greatly aid in the establishment of vegetation.

R647-4-112 - Variance

No variances were requested.

R647-4-113 - Surety

Please provide a reclamation cost estimate to the Division. This will be used as the basis for the Division's reclamation calculations. (TWJ)

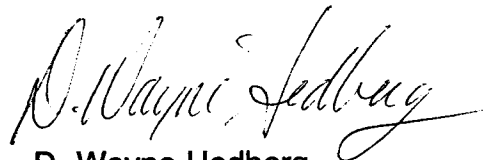
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R647-4-115 - Confidential Information

No confidential information was submitted.

The Division will suspend further review of the Last Chance Bentonite Mine NOI until your response to this letter is received. If you have any questions in this regard please contact me, Travis Jones, Tony Gallegos, or Lynn Kunzler of the Minerals Staff. If you wish to arrange a meeting to sit down and discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,

A handwritten signature in cursive script, reading "D. Wayne Hedberg".

D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

jb
cc: Bryant Anderson, Emery County
Stan Jackson, Western Clay Co.
Neil Simmons, BLM, San Rafael RA
Lowell Braxton, DOGM
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